

REMARKS

The claims in the application are 1-23 and Claims 24 and 25 added by the present amendment.

Favorable reconsideration of the application as amended is respectfully requested.

The present amendment is being made in accordance with a telephone interview between the Examiner in charge of the above-identified application at the Patent and Trademark Office and undersigned attorney on Friday, October 10, 2008. The courtesy extended by the Examiner in arranging for and conducting the telephone interview, is greatly appreciated.

Independent Claim 1 has been amended as presented for discussion during the telephone interview, namely to recite, among other features, bringing a smaller quantity 17 of titrant into contact with the analyte drop 1 which is stationary at all times (reference is being made to preferred embodiments of the present invention illustrated in the drawings of the present application), while Claims 24 and 25 introduced herein find support in the embodiment illustrated in Fig. 4 of the present application. Additionally, another copy of the English Abstract of Muller is enclosed (a copy was given to the Examiner during the telephone interview) together with a previously-submitted copy of Form PTO-1449. Accordingly, it is respectfully requested Muller be properly made of record in light of the submission of concise explanation of relevance, in English, in accordance with M.P.E.P. §609.04(a)III.

Therefore, the only outstanding issue is the prior art rejection of the claims. More specifically, all Claims 1-23 have been rejected under 35 U.S.C. §103 as obvious over U.S. Pat. Pub. 2001/0055529 to Wixforth in paragraph 5 on pages 4-12 of the Final Office Action.

In paragraph 1, on pages 2-3 of the Final Office Action, the Examiner takes the position U.S. Pat. Pub. 2001/0055529 to Wixforth teaches the basic steps of titration, i.e., “separation of a drop and movement into contact with another drop with mixing,” so repeating such steps would be a mere obvious matter of design choice. More specifically, the Examiner asserts paragraph [0077] of U.S. Pat. Pub. 2001/0055529 to Wixforth teaches separating smaller portions of liquid from a larger drop, with paragraph [0041] of this reference teaching moving two drops for mixing and reaction; the Examiner then asserts the teaching of moving separate drops of liquid (e.g., paragraph [0012] of Wixforth) makes it obvious to achieve step-wise reaction of the type involving titration.

During the telephone interview (please see the Interview Summary provided by the Examiner), the Examiner again asserts

Wixforth’s moving of two droplets by surface acoustic wave (SAW) to a mixing and reaction point is a titration [emphasis added].

However, titration is not merely “separation of a drop and movement into contact with another drop with mixing,” as the Examiner asserts (the Examiner has provided no evidence or documentation of such definition or understanding of titration). To refute such assertion, a Declaration executed by Dr. Achim Wixforth, applicant and inventor on U.S. Pat. Pub. 2001/0055529, is enclosed.

More specifically, in paragraph 6 of his Declaration, Dr. Wixforth states the procedure of *titration* involves determining concentration (of a specific ingredient) within a (first) solution by *gradually* adding a (second) solution of known concentration (titrant). *Measurable amounts* of the titrant are *gradually* added until a specific reaction takes place (e.g., color change). Depending upon total amount of titrant added, concentration can be accurately determined.

In paragraph 2 of his Declaration, Dr. Wixforth states U.S. Pat. Pub. 2001/0055529 discloses the basic, general principles of using a surface acoustic wave (SAW) to move small quantities of matter on a surface and focuses upon manipulating a single droplet of liquid. In certain embodiments disclosed in U.S. Pat. Pub. 2001/0055529, moving two or more droplets is disclosed. For example, as pointed out in paragraph 3 of his Declaration, paragraph [0039] of U.S. Pat. Pub. 2001/0055529 discloses dividing a quantity of matter into two parts by irradiating with a surface acoustic wave; as also pointed out in paragraph 4 of his Declaration, two droplets can be moved into each other by using two SAW generators (paragraph [0041] of U.S. Pat. Pub. 2001/0055529). For example, two liquid droplets can be combined for reaction as disclosed in paragraph [0054] of U.S. Pat. Pub. 2001/0055529.

However, Dr. Wixforth then points out in paragraph 5 of his Declaration, both these instances involve setting both droplets in motion. In other words, there is no teaching or suggestion of gradually adding smaller amounts of liquid (titrant) to a stationary amount of liquid. While paragraph [0047] of U.S. Pat. Pub. 2001/0055529

might disclose possibility of overcoming surface tension and subsequently separating a droplet by SAW, there is no indication on how to achieve separation of liquid into *measurable amounts for titration*.

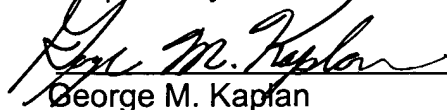
Dr. Wixforth then states, in paragraph 7 of his Declaration, that if he, one skilled in the art, were interested in improving titration, then he would look to conventional titration technique and investigate scaling down conventional titration apparatus. In other words, he would not look to SAW-mediated movement of liquid droplets on a surface as disclosed in U.S. Pat. Pub. 2001/0055529 which contains no disclosure or suggestion of titration by *gradually adding measurable amounts* of titrant while, at the same time, maintaining the liquid droplet of unknown concentration stationary at all times. Therefore, Dr. Wixforth concludes, in paragraph 8 of his Declaration, U.S. Pat. Pub. 2001/0055529 fails to suggest to him, one skilled in the art, the titration method being claimed in the above-identified U.S. application.

The remaining art of record has not been applied against the claims and will not be commented upon further at this time.

Accordingly, in view of the forgoing amendment, accompanying remarks, telephone interview and enclosed Declaration, it is respectfully submitted all claims pending herein are in condition for allowance. Please contact the undersigned attorney should there be any question. A petition for an automatic one month extension of time for response under 37 C.F.R. §1.136(a) is enclosed in duplicate together with the requisite petition fee, RCE transmittal and filing fee and fee for the additional claims introduced herein.

Early favorable action is earnestly solicited.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "George M. Kaplan", is written over a horizontal line.

George M. Kaplan

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